Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Savannah River**

Print Date: **3/9/2000**

Site Summary Level: **Savannah River Site**

HQ ID: **0493**

Project **SR-NM07 / Depleted Uranium Storage**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

SRS currently has an inventory of approximately 50 million pounds of depleted uranium trioxide powder. The material is stored in approximately 36,000, 55-gallon drums in buildings across the site. The age of the drums varies between 14 and 28 years. Some of the drums have been placed in over pack drums because of drum deterioration. Depleted uranium trioxide powder is considered a low hazard material. Some of this inventory may be required through the year 2002 to dilute highly enriched uranium to low enrichment uranium as HEU inventories are stabilized.

Project Status in FY 2006:

SRS utilizes a risk-based prioritization model to ensure the most serious risks are addressed first during times of tight budgets. The prioritization process was developed with extensive stakeholder involvement. This activity is below the funding line for FY 2000-2006 on the prioritization model.

Post-2006 Project Scope:

It is assumed that funding would be made available starting in FY 2007 to begin work on this line item project. Project completion is expected to take 4-5 years. After startup, excess DU oxide would be packaged in the new DOE approved containers and placed in the new storage facility awaiting final disposition. Containers would be subject to periodic inspections for package integrity and repackaged as required.

Project End State

The SRS inventory of depleted uranium trioxide powder would be safely housed in the new DU storage facility until a DOE decision on its final disposition directs its removal. The design life for the new DU storage facility would be 40 years. Facility and containers would meet commercial standards and regulatory requirements for storage of depleted uranium. The new storage building would contain overhead cranes for ease of material handling and drum inspection. There will also be repackaging and decontamination capabilities.

Cost Baseline Comments:

The need for a new facility for the safe handling and storage of DU has been recognized for several years. However, the priority based competition for declining funding has continued to postpone this project. Although the need exists today, the earliest funding is forecast to possibly be available is FY 2007. The total cost of this Line Item Project is estimated to be approximately $50 million spread over 3-4 years. This is a high spot planning estimate based on similar projects, adjusted for escalation. A detailed project estimate has not been developed due to unavailability of funding.

The full cost of PBS work scope may change based on the authorized funding and priorities in any given year due to changes in site overhead assumptions. For planning and budgeting purposes, work scope costs were estimated using site overhead rates sized for clearance at a funding target of $1222.5 million. For FY 2001 (the budget year), the site overhead is applied and cleared at the funding target, while the work scope below the funding target (planning level) is incremental direct cost. For FY 2002 and beyond, the site overhead is applied and cleared over the total planning level of scope.

Safety & Health Hazards:

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Project Description Narratives

The lack of adequate facilities for safely handling and long-term storage of the current depleted uranium inventory presents increasing health and safety risks to employees and risk of contamination of facilities and surrounding land. Depleted uranium is a low hazard material. However, because of the quantity of material involved and present storage methods and conditions there is a risk of release of material or of the collapse of stacked drums. Failure to improve storage conditions will lead to eventual increased risk of injury to handlers and release of depleted uranium to site areas. These hazards are documented in DOE-SR Office of EH Residents Surveillance Report SR-98-300.

Safety & Health Work Performance:

Activities and checkpoints are described by the SRS Integrated Management System and specifically controlled by the SRS Work Control System. The conditions and requirements are clearly established and agreed upon prior to the starting of any project and those requirements are contractually binding upon WSRC. WSRC uses the Integrated Safety Management System (ISMS). The key elements of ISMS are to define the scope of work, identify and analyze hazards associated with the work, develop and implement hazard controls, perform work within controls, and provide feedback on adequacy of controls and continue to improve safety management. The WSRC Integrated Procedures Management System is the primary mechanism for implementing the objective, principles and functions of the Integrated Safety Management System. This system establishes Company-Level, Division-level, and Program-specific procedures consistent with organizational roles, and ensures a consistent, discipline site-wide approach to safety while performing work.

PBS Comments:

Depleted uranium has been a by-product of the SRS plutonium production cycle for approximately 40 years. There are approximately 36,000 drums of depleted uranium trioxides in 55 gallon drums stored in buildings across the site. The stored drums are in various stages of degradation and many are in need of repackaging. Currently there is no central storage available for this product. With the addition of a modern facility having repackaging capabilities and the square footage to store the site inventory, a higher degree of control would be achieved for the site and for the customer. This DU is subject to the Material Control and Accountability DOE Order (5633.3B) which requires, at a minimum, inventory of the individual containers once per calendar year. In the last few inventories, it has become increasingly difficult to meet the intent of the inventory due to package degradation. This project will allow WSRC to continue to monitor and control this material in a way that is compliant with the DOE directives. This project is NOT funded in the current ten year planning window due to funding shortages. Metics for this project are reported under SRNM-01, F Stabilization.

Baseline Validation Narrative:

NA

General PBS Information

Project Validated?	**Date Validated:**
Has Headquarters reviewed and approved project?	No
Date Project was Added:	12/1/1997
Baseline Submission Date:	7/3/1999

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General PBS Information

FEDPLAN Project? Yes

Drivers:	**CERCLA**	**RCRA**	**DNFSB**	**AEA**	**UMTRCA**	**State**	**DOE Orders**	**Other**
	N	N	N	N	N	N	Y	Y

Project Identification Information

DOE Project Manager: Gordon M. Nichols, Jr.

DOE Project Manager Phone Number: 803-952-2021

DOE Project Manager Fax Number: 803-952-2495

DOE Project Manager e-mail address: gordon.nichols@srs.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	**2007-2070 Total**	**1997-2070 Total**	**1997**	**Actual 1997**	**1998**	**Actual 1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
PBS Baseline (current year dollars)	0	158,100	158,100						0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	68,910	68,910						0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	158,100	158,100						0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	68,910	68,910						0	0	0	0	0	0	0

2007	**2008**	**2009**	**2010**	**2011-2015**	**2016-2020**	**2021-2025**	**2026-2030**	**2031-2035**	**2036-2040**	**2041-2045**	**2046-2050**	**2051-2055**	**2056-2060**	**2061-2065**	**2066-2070**

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	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	10,000	10,000	10,000	10,000	13,600	4,500	5,100	5,800	6,700	7,600	8,700	9,900	11,400	13,000	14,800	17,000
PBS Baseline (constant 1999 dollars)	7,941	7,732	7,529	7,331	9,210	2,667	2,646	2,634	2,663	2,644	2,650	2,639	2,661	2,656	2,646	2,661
PBS EM Baseline (current year dollars)	10,000	10,000	10,000	10,000	13,600	4,500	5,100	5,800	6,700	7,600	8,700	9,900	11,400	13,000	14,800	17,000
PBS EM Baseline (constant 1999 dollars)	7,941	7,732	7,529	7,331	9,210	2,667	2,646	2,634	2,663	2,644	2,650	2,639	2,661	2,656	2,646	2,661

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
			3.60%	3.60%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%

2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 9/30/2070

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

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Project **SR-NM07 / Depleted Uranium Storage**

Project Reconciliation

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):		**Actual 1997 Cost:**	**Actual 1998 Cost:**
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	0	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**	0
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	0		

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	68,905	Provide and operate facilities to handle and store SRS inventory of depleted Uranium oxide in drums.
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	68,905	
Additional Amount to Reconcile (+):	5	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**68,910**	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Depleted Uranium Oxide Storage Project Start (SR-NM07)	SR-NM07-001		1/1/2007								
Complete construction of Depleted Uranium Storage facilities.	SR-NM07-002		9/30/2010								
Depleted Uranium oxide storage facility project (SR-NM07) complete	SR-NM07-099		9/30/2070								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description

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Depleted Uranium Oxide Storage Project Start (SR-NM07)	SR-NM07-001	Y		Initiate work to construct an new depleted uranium oxide storage facility in F-Area. The new facility will have provisions to install overpacks on existing drum packages as needed and equipment to perform routine required surveillances. No SEG milestone
Complete construction of Depleted Uranium Storage facilities.	SR-NM07-002			Construction of a new facility in F-Area to house the existing inventory of depleted uranium oxide powder currently packaged in drums. This milestone includes formal turnover of the new facility. No SEG milestone.
Depleted Uranium oxide storage facility project (SR-NM07) complete	SR-NM07-099		Y	Formal completion of the scope of this facility will have been achieved. Startup preparations and reviews will have been completed in accordance with site procedures (i.e., 12Q). This milestone does not include permission from DOE to commence operations